

Ionic Bonding Notes

Ionic Bonding – involves a _____ of electrons and results in the formation of ions.

Ion - _____

***All metal to nonmetal bonding is ionic

H	Metals, Nonmetals, and Metalloids																He	
Li	Be											B	C	N	O	F	Ne	metals
Na	Mg											Al	Si	P	S	Cl	Ar	
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	metalloids
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	nonmetals
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Uub	—	Uuq	—	—	—	—	
		Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu			
		Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr			

Examples of ionic compounds:

Ions are held together by ion to ion _____

Properties of Ionic Compounds:

- 1) Have high melting points (_____)
- 2) Usually _____ in water
- 3) Have well defined rigid crystals (brittle)
- 4) Conduct electricity when _____ or _____
in water

Memorize these polyatomic ions:

SO_4^{2-}	sulfate	PO_4^{3-}	phosphate
ClO_3^{1-}	chlorate	CO_3^{2-}	carbonate
NH_4^{1+}	ammonium	OH^{1-}	hydroxide
NO_3^{1-}	nitrate	$\text{C}_2\text{H}_3\text{O}_2^{1-}$	acetate

Practice: